



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0967; Product Identifier 2018-SW-013-AD; Amendment 39-21394; AD 2021-02-11]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Airbus Helicopters Deutschland GmbH Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, MBB-BK117 C-1, and MBB-BK117 C-2 helicopters. This AD requires inspecting the tail gearbox (TGB) bellcrank attachment arm (arm) for a crack. This AD was prompted by a report of a cracked TGB arm. The actions of this AD are intended to address an unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest

Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0967.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0967; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, any service information that is incorporated by reference, any comments received, and other information. The street address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Kristi Bradley, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email kristin.bradley@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Deutschland GmbH Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, MBB-BK117 C-1, and MBB-BK117 C-2 helicopters. The NPRM published in the *Federal Register* on October 26, 2020 (85 FR 67694). The NPRM proposed to require dye-penetrant inspecting the TGB arm for a crack and for any dent, nick, and scratch, and depending on the inspection results, replacing the TGB, removing the

surface material up to 0.2 mm using 80-grit abrasive paper and repeating the dye penetrant inspection, or finishing the surface with 600-grit or finer abrasive paper. The proposed requirements were intended to detect a crack in the TGB arm.

The NPRM was prompted by EASA AD No. 2018-0046, dated February 19, 2018, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Airbus Helicopters Deutschland GmbH (AHD) (formerly Eurocopter Deutschland GmbH, Eurocopter Hubschrauber GmbH, Messerschmitt-Bölkow-Blohm GmbH), Airbus Helicopters Inc. (formerly American Eurocopter LLC) Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, MBB-BK117 C-1, and MBB-BK117 C-2 helicopters. EASA advises that a crack was detected on a Model MBB-BK117 A-4 TGB arm and that this condition, if not corrected, could result in disconnection of the arm from the TGB and possible loss of control of the helicopter. To address this unsafe condition, the EASA AD requires an inspection of the TGB arm for a crack and for surface anomalies.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received comments from two commenters in support of the NPRM.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA of the unsafe condition described in its AD. The FAA is issuing this AD after evaluating all of the information provided by EASA and determining the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Differences Between this AD and the EASA AD

The EASA AD requires operators to contact Airbus Helicopters if there is a crack or if there is damage that cannot be repaired by removing surface material, whereas this AD requires replacing the TGB instead.

Related Service Information Under 1 CFR part 51

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) MBB-BK117 C-2-65A-008 for Model MBB-BK117 C-2 helicopters and ASB MBB-BK117-30A-120 for Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, and MBB-BK117 C-1 helicopters, each Revision 0 and dated January 31, 2018. The service information contains procedures for inspecting the TGB arm for a crack and surface anomalies.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 177 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Removing the surface coating and inspecting the TGB arm for a crack takes about 2 work-hours and the cost of materials is minimal, for an estimated cost of \$170 per helicopter and \$30,090 for the U.S. fleet.

If required, reworking the TGB arm takes about 1 work-hour and the cost of materials is minimal, for an estimated cost of \$85 per helicopter. Replacing a TGB with a cracked arm takes about 4.5 work-hours and costs about \$69,000 for required parts, for an estimated cost of \$69,383 per helicopter.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-02-11 Airbus Helicopters Deutschland GmbH: Amendment 39-21394; Docket No. FAA-2020-0967; Product Identifier 2018-SW-013-AD.

(a) Applicability

This airworthiness directive (AD) applies to Airbus Helicopters Deutschland GmbH Model MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, MBB-BK117 C-1, and MBB-BK117 C-2 helicopters, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a tail gearbox (TGB) bellcrank attachment arm. This condition could result in disconnection of the bellcrank attachment arm from the TGB and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 100 hours time-in-service:

(1) Remove the surface coating from the TGB bellcrank attachment arm and using a 5X or higher power magnifying glass, dye-penetrant inspect the TGB arm for a crack and for any dent, nick, and scratch in the area shown in Figure 1 of Airbus Helicopters Alert Service Bulletin (ASB) MBB-BK117 C-2-65A-008 or ASB MBB-BK117-30A-120, each Revision 0 and dated January 31, 2018, as applicable to your model helicopter.

(2) If there is a crack, before further flight, replace the TGB.

(3) If there is a dent, a nick, or a scratch, before further flight, remove the surface material up to 0.2 mm using 80-grit abrasive paper and repeat the dye penetrant inspection. If there is a crack or if the damage cannot be removed, before further flight, replace the TGB.

(4) If there is no crack and no dent, nick, or scratch, before further flight, finish the surface with 600-grit or finer abrasive paper.

(f) Special Flight Permits

Special flight permits are prohibited.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Kristi Bradley, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-AVS-AIR-730-AMOC@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD No. 2018-0046, dated February 19, 2018. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2020-0967.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Alert Service Bulletin (ASB) MBB-BK117 C-2-65A-008, Revision 0, dated January 31, 2018.

(ii) Airbus Helicopters ASB MBB-BK117-30A-120, Revision 0, dated January 31, 2018.

(3) For service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at <https://www.airbus.com/helicopters/services/technical-support.html>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, email fedreg.legal@nara.gov, or go to:

<https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on January 14, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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